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Feature

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THE WORLD'S NEXT ENERGY BILLIONAIRE?

Green Dragon Gas Builds Upon Greka Energy's CBM Contracts in China

Randeep Grewal (far right) and two of his team at a signing ceremony for CBM production-sharing contracts in China.

By James Finch

Even the enemies of Randeep S. Grewal admire his business savvy. Few might be surprised if the CEO of Green Dragon shows up some day on the ***Forbes*** magazine list of billionaires. His company's recent share offering on the London Stock Exchange's AIM, commencing with a market capitalization of US$525 million, was quite the bold stroke, raising a few eyebrows. Green Dragon placed a bit more than 4.5 million shares, less than 5 percent of the company's outstanding shares, to raise $25 million. Randeep Grewal kept the remaining 95.2 percent of Green Dragon for himself.

Upon the company's admission to the AIM market Grewal remarked, "2007 promises to be a landmark year for CBM and its contribution to the Chinese energy supply…This listing is an important and timely milestone in our growth driven strategy." The last time Grewal stooped to deal with the minor annoyances of the capital markets, he personally bought up all the shares of Greka Energy Corp, then trading on the NASDAQ. Shareholders loved him – he paid a 69 percent premium for their shares in 2003. Greka delisted from NASDAQ and deregistered with the U.S. Securities Commission.

Since then, it's been more difficult to track Grewal's latest accomplishments, but based upon the price of oil, his privately owned fiefdom is likely flush with cash. In a 2002 news release, Grewal revealed the then-public Greka Energy owned 800 million barrels of recoverable heavy gravity oil, which is ideal as feedstock for his asphalt refinery. That year Greka's throughput was 3400 barrels of asphalt per day. According to ABC News, the state of California paid $359/ton for asphalt – up 61 percent over the past year. High gasoline prices are driving major oil companies to squeeze more gasoline production out of their crude oil. In any event, Grewal simply gets wealthier with every new barrel of asphalt or crude oil his company produces.

At least Green Dragon Gas is now publicly traded, offering shareholder participation. But, few shares are available to the public. Grewal may be generous to shareholders at the end of the day, but he's not parting with his shares this early in the game. In his filing statement with AIM, the company noted that issuing further shares to raise additional cash would come as a last resort, or more delicately stated, "… as appropriate under the circumstances." Grewal would first turn to debt financings and other measures before offering shareholders additional liquidity.

It is not an accident the share price of GDG, which opened for trading at US$5.56/share quickly rose to a recent high of $6.60/share. A close study of Grewal's last company explains the high confidence in Green Dragon Gas. Not to be confused with his previously

GDG website logo and LSE logoGreen Dragon Gas Trading on London's AIM market

named Grewal Energy, which is now called Greka Integrated, Green Dragon Gas is the parent company of Hong-Kong based Greka Energy. They hold five CBM production-sharing contracts with China's state-owned CUCBM (China United Coalbed Methane Company). Green Dragon's contracts are upon massive tracts of land (more than twice the size of Rhode Island), which could potentially host 16.5 trillion cubic feet of methane gas.

According to the Green Dragon Gas website, Grewal is also chairman and chief executive of the California-based Greka Integrated, a company which is described as being "involved in heavy oil and gas transportation, refining, real estate and with interests in energy properties and refining assets." It is Santa Barbara County' largest onshore oil company with holdings in Bakersfield, Orange County and the Los Angeles basin, Greka operates almost 70 onshore production, processing and transportation facilities in Santa Barbara (California), as well as the Santa Maria Asphalt Refinery. It is the same one which produced 3400 barrels of asphalt every day during 2002.

While others talk a good game, Grewal excels at the energy game. In his last published interview which we were able to dig up (August 2001), Grewal explained exactly how he planned to make Greka Energy a success story, i.e. selling oil or using it product asphalt and then sell asphalt, depending upon the price. And then he did. In a July 2002 news release, Grewal mentioned his company would have long-term activities in China. And now it does – through Green Dragon Gas.

In explaining the company's business plan, during his 2001 interview, Grewal unabashedly boasted, "We're profitable at $10 oil. We're profitable at $30 oil. We're profitable at $2 gas, and we're profitable at $16 gas." He called his asphalt plant "a natural hedge to fluctuating commodity prices." It also provides consistent cash flow. And there is no doubt Grewal is ever more profitable with crude oil selling around $70/barrel.

Steve Chase, Santa Barbara County's deputy energy director, who regulates Greka's refinery (and has participated in fining Greka – see below), calls the company's business plan "absolutely brilliant." Chase praised Greka in a ***New Times*** newspaper article, explaining the company's economics, "Oil sells either high or low, but asphalt doesn't. If you're an oil company with an asphalt refinery, you can sell into two different markets. When oil is low, you use it to make asphalt. When it's high, you (just) sell it."

Despite Chase's praise, Grewal's road to success has not been without a few car wrecks along the way. In 2002 and 2003, his company was cited for more than 70 violations, which included oil spills and gas releases, according to the ***Santa Barbara News-Press*** newspaper. The country's district attorney filed felony charges against Greka after an explosion near the asphalt refinery injured two workers. Greka settled for civil penalties of $200,000.

In November 2005, Greka Integrated lost its breach-of-contract lawsuit against a former safety manager, Gary Lowery. In June of this year, the U.S. Environmental Protection Agency fined the company $127,500 for "unauthorized disposal of oil refinery wastewater into the facility's injection wells, in violation of the federal Safe Drinking Water Act." This Greka has paid out about $700,000 in settlements since Grewal took the company private. Life's little annoyance become less problematic when one is selling oil for much more than $30/barrel. Especially when this same oil was profitable at $10/barrel.

Grewal Turns to China to Build His Fortune

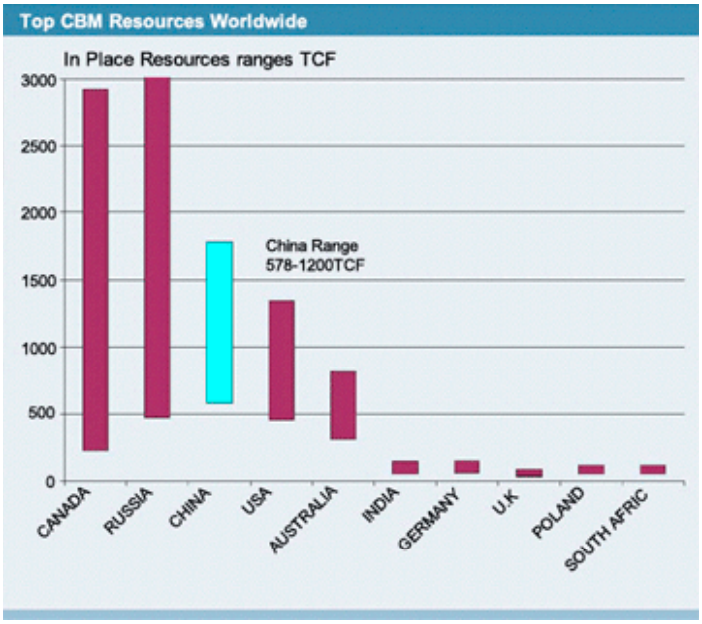
Randeep Grewal's came into the energy markets as chairman and chief executive of an oil and gas horizontal drilling company, Horizontal Ventures. During the energy bear market, Grewal cleverly began a series of mergers and acquiring oil and gas assets, which led to his first Greka Energy Corp. He knew where to find deals and deftly began assembling his energy empire. Horizontal drilling is integral to coalbed methane development, which brings Grewal back to where he started – as a gas drilling company.

Also along the way, two of Grewal's companies have suffered bankruptcies. This past November, Saba Enterprises, formerly Greka Energy Corporation, filed for Chapter 7 bankruptcy, after two creditors won judgments totaling $19.5 million. In its petition the company announced it had no assets. The total creditor shortfall could rise to more than $24 million. In 1999, another company of which Grewal was a director, Sabacol – a subsidiary of Saba Petroleum, was dissolved following the sale of its assets after working its way through Chapter 11 bankruptcy proceedings.

Life is also filled with many second chances. This time, however, through Greka Energy (Hong Kong) and Green Dragon Gas (GDG), Grewal owns what might someday become a multi-billion dollar gas project. Smith & Williamson, Green Dragon's IPO underwriter valued the company at $973 million, depending on its success in recovering GDG's estimated methane gas in place and the wellhead price at time of delivery.

Until recently, coalbed methane was treated as a hazardous waste product which killed coal miners in tunnel explosions. In China, depending upon whose numbers you believe, between 4,000 and 6,000 coal miners die each year. At best, methane was an unwelcome byproduct of coal mining, which the Chinese vented into the atmosphere aggravating an already atrocious air pollution crisis.

When the Chinese began to realize CBM was providing a greater percentage of the U.S. gas production, they wanted to develop their own vast resources. After all, the Chinese are pragmatists. Why pay through the nose to import LNG, when you are throwing away all that methane? In 2004, coalbed methane accounted for 8 percent of U.S. gas production. That's the same percentage number China



China's "gas in place" ranks among the highest in the world.

mandated in its eleventh five-year plan for the role of gas in its energy mix. And as we've mentioned in previous articles, China has idled as much as 40 percent of its gas-fired plants because it could not obtain sufficient gas supplies.

Methane or C4, which is a more pure gas than conventional gas, is found within the carbon lattice of coal at a molecular level. The less "sweet" natural gas, which is found in more conventional fields, was generated by hydrocarbon source rocks and is trapped in a porous and permeable reservoir rock, such as carbonate reserve or sandstone. Water pressure holds coalbed methane in place, which required new drilling technology, to efficiently extract.

To extract coalbed methane, a company drills wells into the coal seam, and then perforates and fractures the coal seams. By increasing permeability through this process, water is able to be pumped out of the coal seam. During this de-watering process, pressure holding the gas in place is reduced. This pressure differential vents the gas through the fracture systems into the well. Voila! What had been killing coal miners and polluting China's atmosphere could now be utilized to power gas-fired energy plants.

Green Dragon's CBM Concessions

While Green Dragon Gas is blessed with early production-sharing contracts it negotiated through Greka Energy, and those offer the hope of several trillion cubic feet of coalbed methane gas, there could be serious obstacles in extracting the methane gas. In a May 2006 research report, the underwriters warned GDG "faces a combination of undersaturation, low permeability and low coal seam thickness that makes much of this resource challenging to commercialise." Any versed CBM investor would look the other way after reading this string of hurdles GDG must overcome to commercially produce the methane gas.

Despite this bleak assessment, Smith & Williamson endorsed and backed Green Dragon Gas. Research analyst James Elston wrote, "However, innovation by Green Dragon and its world class Chinese contractors should allow significant upgrades in recoverable reserves through time especially with rising gas prices." That's the blue sky aspect of Green Dragon – making an uneconomic, but very large, project bear fruit. Because the coals are undersaturated and because there is low permeability, conventional wells would bring low productivity of methane gas.

A big vote of confidence, and which resulted in our writing about this company, came after noticing two big names which appear on the company's board of directors: John Turnbull and Stewart John. Formerly the Chairman of the Swire Group and Cathay Pacific airlines, Turnbull was once a Hong Kong "Taipan." Stewart John has been awarded Order of the British Empire (OBE) and had been part of the Turnbull executive team at Hong Aircraft Engineering Company and Cathay Pacific. Mr. John has also been a non-executive director of British Aerospace and Rolls Royce.

A glance at the GDG technical team shows strength. Not only are all the senior technicians Chinese, but they are proven engineers, drillers or geologists with ties to the oil, gas and/or coal sectors. The chief engineer, Zuo Kefeng, has 23 years of drilling experience with vertical, horizontal and multi wells. The chief geologist has 20 years of CBM experience at the coal bureau level. Operations manager Mel Lone has been chief representative and general manager for Greka Energy in China since 2001. Ostensibly, Grewal recruited the crème de la crème.

Of the five production-sharing contracts, which comprise more than 1.6 million acres, some parts of their concessions may be subeconomic. Smith & Williamson created a base scenario between 592 and 1,000 bcf net, which would corroborate their valuation of the company of just under $1 billion. The research analyst voiced, "Further successful appraisal and testing together with greater optimization of development techniques could make increasing amounts of this vast in-place reserve economically developable." We would hope so.

The brokerage firm's valuation was reached on the basis of between three and six percent of the GDG's touted gas-in-place. Why is that? Of the five concessions, the most advanced block is Shizhuang South. The research analyst reported the "appraisal of the other licenses (are) being relatively immature." Shizhuang South is currently producing about 265 mcf per day from pilot wells which feed into a gas-fired electricity generator. The current estimated recoverable reserves from this block stand at 417 bcf (gross), which comprises most of the brokerage firm's valuation of Green Dragon.

It is anticipated by late 2006 or in early 2007, Green Dragon will have gotten approval an overall development plan to commence full scale development. Further exploration and development may potentially show a larger number Spud in ceremonies were held for single wells on the Quinyan and Fengcheng blocks during July so additional exploration and development activity may help boost the recoverable reserve number and, in turn, the company's valuation.

Two Key CBM Competitors in China

Partially surrounding one of GDG's Shizhuang properties is a much larger block held by Far East Energy. Partnered with ConocoPhillips, Far East Energy's share could reach up to 6.9 tcf. Exploratory drilling on the company's Shanxi project is reportedly advanced, but requires a production test. As with GDG, Far East Energy has a massive one million plus block. According to the Yunnan Provincial Coal Bureau, there are four coalbed seams averaging nine feet in thickness. The total coalbed thickness is 60 feet. While recoverable reserves for GDG range between 16 and 28 percent, according to

the research analyst reporting on Green Dragon, Far East Energy notes on their website that a recovery of 50 to 65 percent is possible. Previous tests have shown an economic gas content of 200 to 500 cu ft gas per ton of coal.

Far East also boasts the company could have one of the largest CBM projects in the world during full development. The company believes the Shanxi project could sustain an estimated 3,000 horizontal gas wells. Investors should note that unlike the "drill and forget" development of conventional natural gas reserves, where one or two wells can recover 30 bcf of gas, CBM is different. Hundreds of wells may be required to horizontally extract coalbed methane gas. While drilling and casing the wells cost less, maintenance and operations cost more. CBM production can extend for a longer period, sometimes over a number of decades to deplete the reservoir.

Another key competitor, and potentially a partner to other CBM companies in China, including coal companies who are also producing methane gas, is Pacific Asia China Energy (PACE). As with Green Dragon and Far East Energy, PACE has a very large property position with an estimated gas in place of up to 11.2 trillion cubic feet. PACE holds two licenses, the same number as Far East Energy. Exploration drilling to confirm China's coal bureau data is ongoing.

PACE hopes to commence a pilot production project in late 2006 should current drilling confirm an independent technical report, which was prepared by Sproule International. News releases updating the company's progress indicate good permeability and thickness in coal seams. News over a month ago reported the company's drilling confirmed the "most likely case scenario" for the Guizhou project of 5.2 trillion tcf.

However, what will probably create a strong momentum for PACE is its joint venture with Mitchell Drilling Services of Australia. Both Green Dragon Gas and Far East Energy are likely to require something on the order of this joint venture's proprietary Dymaxion® drilling technology to increase recoverability. While PACE has the smaller acreage and the lower gas-in-place of this trio of CBM companies, the company holds a strong edge: PACE may be capable of extracting a larger amount of gas more economically. In a previous interview with Nathan Mitchell, head of the drilling company, he was confident he could extract CBM gas at a cost which might transform even the most uneconomic projects into a commercially viable one. According to previous interviews with Mitchell and Steve Khan, executive vice president of PACE, the first Dymaxion® drill rig should arrive in China later this year.

Conclusion

By 2020, China hopes CBM can provide up to 10 percent of the country's gas production. CUCBM will continue to lead China's coalbed methane development. But, others who are currently developing their production-sharing contracts could also become strong methane gas suppliers in China.

Europeans appear to appreciate CBM in China more so than North American funds. A great deal of western hemisphere funding is earmarked for western Canada's CBM exploration and development. Bloated gas storage numbers hit the CBM stocks very hard this past June and caused the sector to disappoint investors.

While CBM companies developing their projects in Alberta or elsewhere in Canada may have to wait until natural gas prices recover, or become part of the consolidation process, CBM companies in China are in an entirely different marketplace. Aside from being the world's largest producer of coal, China has massive CBM gas-in-place. Unlike Canada, China is frantically negotiating to import more natural gas to keep its gas-fired plants running. The addition of coalbed methane gas would be welcome. According to industry insiders we've conversed with, China's state-owned CUCBM has been bending over backwards to make CBM projects in this country come to fruition. Investors should realize that CBM in China is a completely different world than CBM in Canada.

One industry insider explained to us, "Green Dragon Gas will probably lift up the entire CBM sector in China." With these three CBM companies already in the game, another two or three Canadian CBM development companies may soon commence exploration on their projects. And sooner rather than later, more will join in. And who knows? Randeep Grewal might join the billionaire's club next year. Of one thing we are certain, if he does reach that premier status, CUCBM will have more foreign investment rushing in to capitalize upon China's CBM production-sharing contracts.